

M E M O R A N D U M

ST. CLAIR COUNTY - Cahokia/Sauget
Stream Pollution
Complaint Investigation

TO: Division of Water Pollution Control - Field Operations Section

FROM: Lawrence W. Eastep, Supervisor - Region IV

DATE: May 15, 1975

INTERVIEWED: Mr. Ernest Russel, Health Officer, City of Cahokia
Mr. Joseph Goldenberg, Engineer, Cerro Copper
Mr. Mike Foresman, Monsanto (by phone)

On May 14, 1975, Mr. Ernest Russel, Health Officer for the City of Cahokia contacted this office concerning what he felt was a discharge from the Cerro Copper Co. to Dead Creek - which flows through Cahokia. Russel had been notified of this situation by Mr. Walter Allan of Theresa's Flower Shop.

On May 15, 1975, this writer, accompanied by Mr. Russel, contacted the complainant, and later observed Dead Creek in several locations starting at Queeny Avenue (in Sauget) and going downstream to several road-crossings in Cahokia. In talking with Mr. Allan at his flower shop, it was learned that there is an old abandoned quarry pit (H. H. Hall Construction Co.) behind Allan's house that currently only acts as a backwater area to the Creek. Allan stated that he has a shallow well adjacent to the quarry pit, which he uses to water his flowers. During the week of May 5 - 12, heavy rains occurred and during this period the water in the quarry pit became a reddish-brown or orange color. Allan then reported that he used well water to water his orchids, and the water ruined them. One orchid was observed to have numerous brown lesions over the surface of all the petals. This had never happened before.

Dead Creek was first observed at Queeny Rd. There was no flow at this point but there was water pooled in various spots. The water was clear but with a yellow-orange color. The bottom was a reddish-orange color, and the banks were discolored the same way. There had recently been either a considerable flow in the Creek, or the Creek had backed up to the point where it was almost two ft. deep, as evidenced by a high water mark on the culvert face on Queeny Rd. In talking with Mr. Goldenberg, and later Mr. Foresman (by phone), it was reported that the culvert which passes under Queeny Rd. was sealed off several years ago, (to prevent drainage) from behind Cerro Copper and Monsanto from reaching Dead Creek. One sample was collected from a pool at the Queeny Rd. location, with results as listed below:

COD	TDS	SUSP. SOLIDS	pH	AMMONIA	CHLORIDES
36 mg/l	890 mg/l	25 mg/l	7.5	2.0 mg/l	150 mg/l
CYANIDE	COPPER	CHROMIUM (Total)	IRON	MERCURY	
0.00 mg/l	0.30 mg/l	0.0 mg/l	3.2 mg/l	0.1 ppb	

North?
face?
by whom?

Dead Creek was also observed at several downstream locations. About $\frac{1}{2}$ mile down was Mr. Allan's (Theresa's) Flower Shop. Behind Allan's, and adjacent to the creek was an abandoned quarry pit. The pit was full of a dark reddish-brown water and appeared to be now a backwater area to the Creek. About four other points were observed in the next $\frac{1}{2}$ mile downstream. The first three points showed the same reddish bottom discoloration that was noted at Queeny Rd. but at a lesser magnitude. In these three spots there was standing water, but no discernible flow. In the fourth downstream location, there was no water, and no bottom discoloration. All of the above-mentioned stream observations were made while in the presence of Mr. Russel.

After leaving Mr. Russel, Mr. Goldenberg of Cerro Copper was contacted. Mr. Goldenberg showed the writer a large 250' x 50' channel which used to be the headwaters of Dead Creek until the Queeny Rd. culvert was allegedly blocked up. The channel was about 20 ft. deep with about 6" of water in it. The water was reddish-brown color and appeared to be flowing a very low rate towards a diversion structure at the north end of the channel. The diversion structure or box, drains the channel, takes the discharge from Cerro's main lift station, receives some of the domestic flow from the City of Sauget, and discharges them all under the Alton and Southern R. R. tracks to a gravity sewer on Monsanto's property, which in turn goes to the Sauget STP.

It appeared to this writer that the water in Dead Creek was the same as the water in the channel behind the Cerro plant. The question is, was the water the same because the Monsanto sewer surcharged and backed the channel up through the Queeny Rd. culvert which is not quite plugged, or was Dead Creek so clogged and choked with vegetation that it backed up through the culvert. The answer is not quite clear at this point. The sample results, because of the relatively low COD and Suspended Solids, the neutral pH, and the relative lack of metals (except Iron) would seem to exclude the presence of Monsanto wastes in the water. The iron which was probably responsible for the color could have come from the abandoned quarry pit, but at this point, even this cannot be confirmed. As conditions permit this situation will be investigated further.

Attached is a copy of a topo showing the area under discussion.

A. J. E.

LWE/skv

cc: Region IV ✓

009607

WATER POLLUTION CONTROL

LOCAL COMPLAINTS

COUNTY/MUNICIPALITY St. Clair / Cahokia REGION IV - COLLINSVILLE
 DATE RECEIVED 5/14/75 BY WATKINSON PHONE (X) or LETTER ()
 LOGGED IN - YES (X) NO () ASSIGNED TO: LUC
 COMPLAINT AGAINST Cerro Copper COMPLAINANT ERNEST RUSSEL
 COMPLAINT LOCATION Cahokia ADDRESS Cahokia Health Officer
Cahokia City Health
 PHONE _____ PHONE 337-3492
 CONTACT DURING VISIT: YES (X) NO ()

DETAILS OF COMPLAINT: 3 Blks. So. of Cerro Copper @ 101 WALNUT,
A CITIZEN REPORTS THAT THE STREAM IS RED OR ORANGE FROM
Cerro's Discharge (2.)

COMMENTS: CREEK IS DEAD CREEK AND RUNS FROM ALTON & SOUTHERN
P.R. AT MANSON'S PROPERTY THROUGH CAHOKIA, THENCE TO THE
CAHOKIA CHUTE AND FINALLY TO ILL. RIVER

ACTION TO BE TAKEN: Routine Investigation - Yes (X) No ()
 Letter to Complainant - (Date: _____)
 None ()
 Refer to Other - ()

11.0

SPECIAL ANALYSIS FORM

Time Collected 3:00 PMSub-Basin Region 11Date Collected MAY 15, 1975Collector FASTEDCity Name: Cerro Cooper Pass / Missouri

Facility Number:

File Town

Stream Name(s) DEAN CREEK

Stream Code:

Source of Sample: (Exact Location) DEAN CREEK on So. Side of Highway Rd.Physical Observations, Remarks: Yellow - Orange Color - Bottom Deposits
chemical odor

Field Dissolved Oxygen	Field pH <u>7.0</u>	Field Temp.
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Arsenic

Coliform/100ml

BOD

Barium

Fecal Coliform

100 ml

Boron

Fecal Strep

100 ml

Cadmium

Algae (Total) /ml

0.30 Copper2.0 Ammonia (N)

Chromium (tri)

Organic Nitrogen (N)

0.00 Chromium (hex)

Nitrate + Nitrite (N)

3.2 Iron (Total)

Phosphorus (P)

Iron (Dissolved)

150 Chloride

Lead

Fluoride

Manganese

Sulfate

0.1 Mercury (ppb)0.000 Cyanide

Nickel

MBAS

Selenium

Phenol (ppb)

Silver

Zinc

Transported by:

Received by:

Transported by:

Received by:

Results in mg/l unless
otherwise noted.100% Recycled Paper Meets ILPA
Preservation Standards☐ Yes

FOR LAB USE ONLY

A19840

Lab Number: MAY 16 1975 Rec'd by: K. SmithDate sample rec'd: MAY 28 1975 Time: 2:15 PMDate analysis completed: MAY 29 1975Date results forwarded: MAY 29 1975Total Tests requested: 11 Tests run: 11Lab Section: Water Supervisor

